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Latest NOvA Oscillation Results from 10 Years of Data

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NOvA is a long-baseline, accelerator-based neutrino oscillation experiment, optimized for electron neutrino measurements. It utilizes the upgraded, Megawatt-capable NuMI beam from Fermilab to measure electron-neutrino appearance and muon-neutrino disappearance at its Far Detector in Ash River, Minnesota. NOvA's goals include resolving the neutrino mass hierarchy problem, constraining the CP-violating phase, and determining the octant of theta23. This talk will present the latest results on muon (anti-)neutrino disappearance and electron (anti-)neutrino appearance from NOvA. These measurements are based on 10 years of NOvA data collected between 2013 and 2023. The new NOvA results suggest a preference for the normal mass hierarchy with a credence level of 87%.

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